2.0 GENERAL DESCRIPTION

The general description of Butte County is discussed in this section as follows: (1) land ownership, (2) topography and vegetation, (3) precipitation, (4) population, (5) land uses and economic development, and (6) roads. The Butte County Comprehensive Plan, the Butte County Assessor's office, North Wind's GIS database, and the County's website provided much of this information.

2.1 Land Ownership

Butte County, Idaho, is comprised of approximately 1.4 million acres divided among six landowners (Table 1). The Lemhi and Lost River Mountain ranges are located on the north and central portion of the County and are managed by the U.S. Forest Service (USFS) - Challis National Forest. Bureau of Land Management (BLM) lands, interspersed with State lands, adjoin the National Forest and extend to the south. The U.S. National Park Service manages Craters of the Moon National Monument (CMNM) in the southwest portion of the County, and the Department of Energy manages the Idaho National Engineering and Environmental Laboratory (INEEL) to the east. Private land lies mainly along the Big and Little Lost River Valleys (Figure 1).

Table 1. Land Status of Butte County, Idaho

Land Status	Acres
BLM	494,513
INEEL	336,617
USFS	271,484
Private	171,332
CMNM	136,694
State of Idaho	19,885
Open Water	467
Total	1,430,992

2.2 Topography and Vegetation

The topography of Butte County is primarily high mountain desert with elevations from 4,783 feet at the Big Lost River Sinks on the INEEL to 12,197 feet at the top of Diamond Peak in the Lemhi Range. The dominant shrub species are Wyoming big sagebrush (*Artemisia tridentata* spp. *wyomingensis*), basin big sagebrush (*A. tridentata* spp. *tridentata*), and green rabbitbrush (*Chrysothamnus vicidiflorus*). This cover type is commonly known as the Upper Snake River Plain sagebrush-steppe and represents most of the wildland urban interface in Butte County. Much of this ecosystem throughout the west has been segmented and converted to development and agriculture. Basin big sagebrush may dominate or co-dominate with Wyoming big sage in areas with deep or sandy soils. These shrubs ignite readily and produce hot fires. Other common shrubs include winterfat (*Ceratoides arborescens*), spiny hopsage (*Greyia spinosa*), gray horsebrush (*Tetradymia canescens*), rubber rabbitbrush (*C. nauseosus*), and prickly phlox (*Leptodactylon caespitosum*). The shrub understory consists of a variety of grasses and forbs. The most common native grasses include thickspike wheatgrass (*Eylmus macrourus*), Indian rice grass (*Achnatherum hymenoides*), bottlebrush squirreltail (*E. elymoides*), needle-and-thread grass

(*Stipa comata*), and bluebunch wheatgrass (*Pseudoroegneria spicata*). Some of the more common native forbs include tapertip hawksbeard (*Crepis acuminata*), Hood's phlox (*Phlox hoodii*), western yarrow (*Achilles millefolium*), lupines (*Lupinus* spp.), milkvetches (*Astragalus* spp.), and mustards (*Brassica* spp.). Willow (*Salix* spp.) occurs along the major watercourses and drainages. Rocky Mountain juniper (*Juniperus scopulorum*) has encroached into native sagebrush steppe communities in many locations. This species tends to burn rapidly and hot, further exacerbating the fire potential in many areas throughout the County. The most common non-native grasses are cheatgrass brome (*Bromus tectorum*) and crested wheatgrass (*Agropyron cristatum*).

2.3 Precipitation

Tables 2 and 3 summarize mean monthly climatic data for the Arco and Howe weather stations for years 1948 to 2003. These weather stations are located near Arco and Howe, which are within two separate valleys within the County. The data compare favorably and show the highest precipitation during the months of May and June and then tapering off through the summer and fall.

Table 2. Monthly Climate Summary for Arco, Idaho

Parameter	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	28.9	34.6	43.9	57.1	67.7	76.8	85.8	83.9	74.1	61.4	43.0	31.1	57.3
Average Min. Temperature (F)	3.8	8.7	18.9	28.2	36.8	43.5	48.7	46.2	37.9	28.8	18.0	7.3	27.2
Average Total Precipitation (in.)	0.90	0.88	0.68	0.79	1.19	1.15	0.58	0.68	0.65	0.49	0.70	0.92	9.60
Average Total Snowfall (in.)	10.4	6.2	2.7	0.8	0.4	0.0	0.0	0.0	0.0	0.2	2.3	8.0	31.1
Average Snow Depth (in.)	4	2	1	0	0	0	0	0	0	0	0	1	1

Data for period August 1, 1948 to July 31, 2003 (Western Regional Climate Center – 2003).

Table 3. Monthly Climate Summary for Howe, Idaho

Parameter	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	30.2	36.2	47.1	59.6	68.5	77.4	87.1	85.1	74.4	61.1	43.2	31.3	58.4
Average Min. Temperature (F)	6.5	12.0	21.8	30.1	38.5	45.5	50.4	48.2	38.9	28.9	18.7	8.2	29.0
Average Total Precipitation (in.)	0.56	0.55	0.47	0.69	1.04	1.21	0.59	0.79	0.54	0.46	0.60	0.69	8.20
Average Total SnowFall (in.)	3.3	2.5	1.5	0.7	2.4	0.0	0.0	0.0	0.0	0.4	1.5	4.4	16.6
Average Snow Depth (in.)	3	2	1	0	0	0	0	0	0	0	0	2	1

Data for period August 1, 1948 to July 31, 2003 (Western Regional Climate Center – 2003).

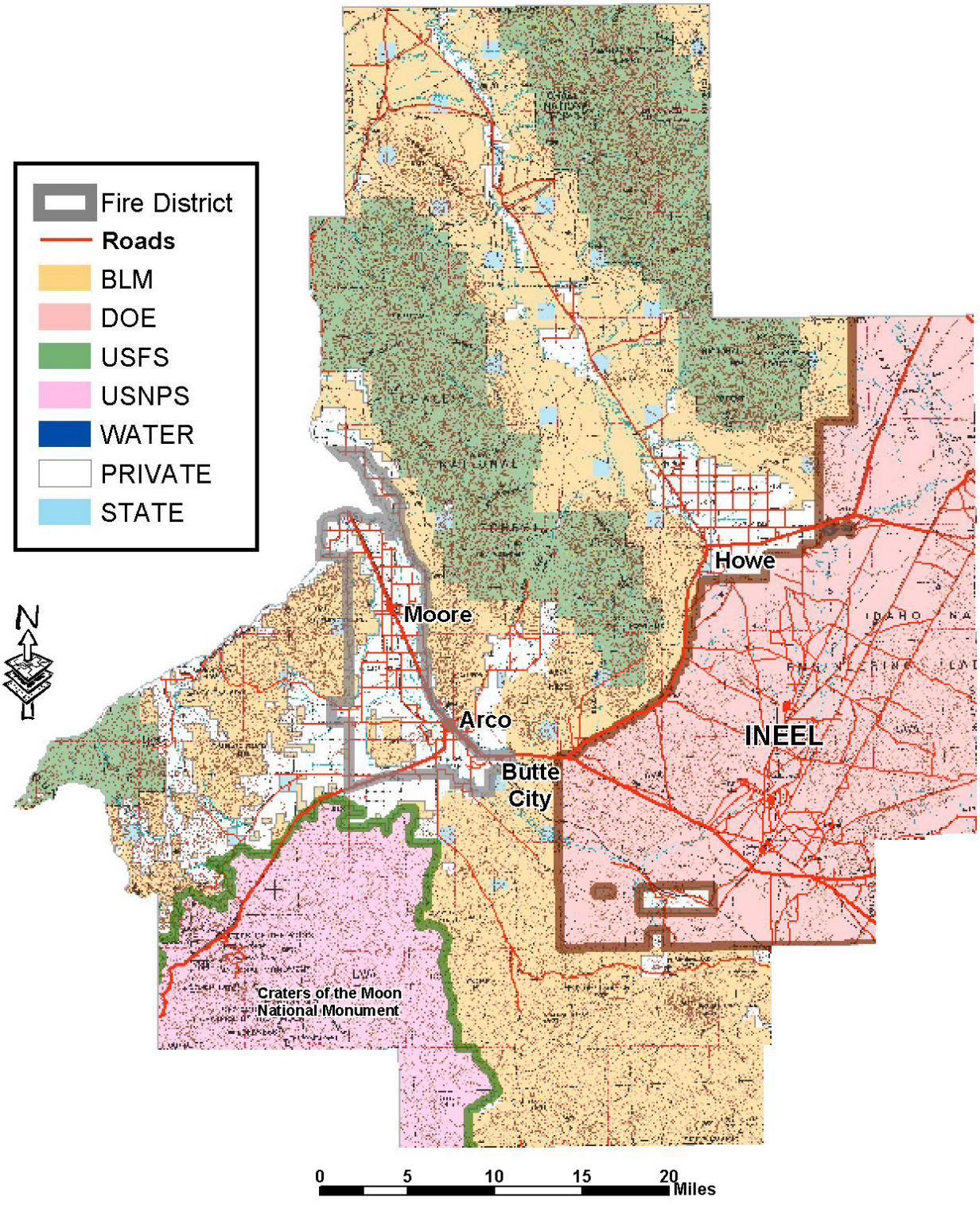

Figure 1. Butte County Land Ownership.

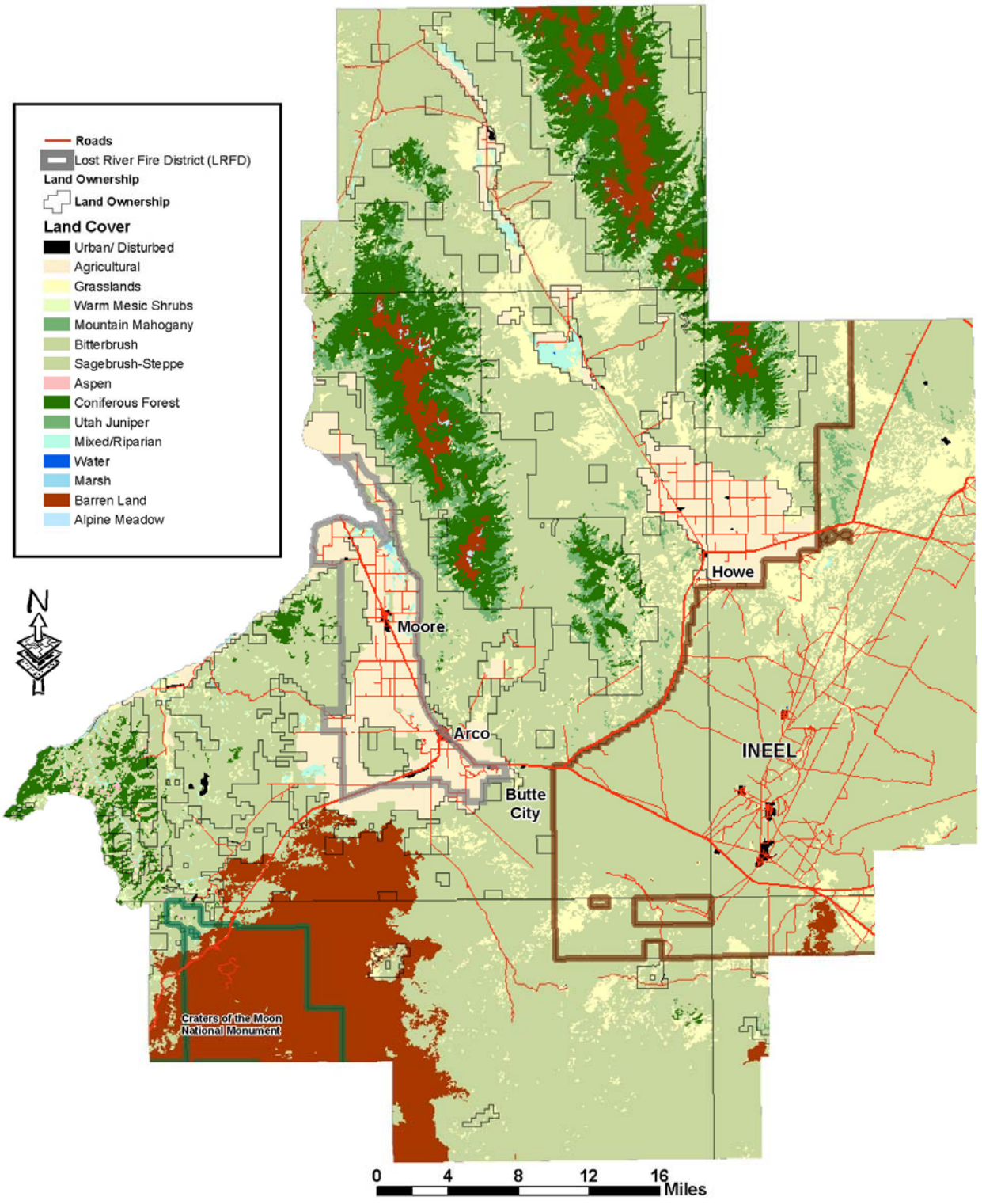

Figure 2. Butte County vegetation map.

2.4 Population

According to the Butte County Comprehensive Plan (Beal et al. 1998), the population of the county is considered 100% rural and approximately 1.30 persons per square mile. The National Association of Counties (2003) shows a decline in population for Butte County from 1980 (3,351) to 2000 (2,899). Table 4 shows the population of the major towns in Butte County – Arco, Butte City, and Moore – for years 1980, 1990, 1992, 1994 and 2000. For the Arco service area, the Eastern Idaho Fire Program (2003) shows no current rate of population growth per year, less than 5% anticipated growth per year, and greater than 10% population growth occurring in the wildland-urban interface.

Table 4. Arco, Butte City, and Moore Populations

Cities	Population				
	1980	1990	1992	1994	2000
Arco	1241	1016	1029	1106	1026
Butte City	93	59	65	59	76
Moore	210	190	196	198	196

2.5 Land Uses – Economic Development

Butte County's most important land use is agriculture and the majority of these land owners rely on public grazing lands to support their operation (Beal et al. 1998). The largest employment sectors are services, manufacturing, and the INEEL, with agriculture following as fourth. The Comprehensive Plan estimates the total employment within the county at 8,200 although only 15% (1,200) reside in Butte County and 18% (1,470) commute to other locations outside the county. Many persons reside outside the county and work at the INEEL.

2.6 Roads

The 2002 Butte County Subdivision Ordinance identifies roads and assigns a classification to each road (Table 5). In this report, these classifications were used to describe a road as it applies to fire department response time.

Table 5. Road Classifications for Butte County

Butte County Road Classifications
Minor road – provides access to abutting properties
Collector road – carries traffic from minor roads to the other collecting roads and/or arterial roads
Arterial road – designed to carry fast and/or heavy traffic between communities
Loop road – minor road with both terminal points on the same road of origin
Cul-de-sac – road connected to another street at one end only which is not more than 500 feet in length and terminates with an adequate temporary turnaround having a minimum radius of 50 feet for right-of-way
Frontage road – parallel to and adjacent to an arterial road, which has the primary purpose of providing access to abutting properties
Industrial road – designated for the purpose of providing traffic movement in an industrial area
Commercial road – designated for the purpose of providing traffic movement in a commercial area
Partial road – dedicated right-of-way providing only a portion of the required road width, usually along the edge of a subdivision or tract of land
Private road – provides vehicular and pedestrian access to one or more properties, however, not accepted for public dedication or maintenance